

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

KAIST IP US LLC,

Plaintiff,

V.

SAMSUNG ELECTRONICS CO., LTD.;
SAMSUNG ELECTRONICS AMERICA, INC.;
SAMSUNG SEMICONDUCTOR, INC.;
SAMSUNG AUSTIN SEMICONDUCTOR,
LLC; GLOBALFOUNDRIES INC.;
GLOBALFOUNDRIES U.S. INC.; and
QUALCOMM INCORPORATED,

Defendants.

[illegible]

Case No. 2:16-cv-01314-JRG-RSP

JURY TRIAL DEMANDED

**SAMSUNG'S OPPOSITION TO PLAINTIFF'S MOTION FOR SUMMARY
JUDGMENT OF INFRINGEMENT**

I. INTRODUCTION

Defendants respectfully oppose Plaintiff's motion for summary judgment of infringement of U.S. Patent No. 6,885,055 ("’055 Patent"). Plaintiff's motion sweepingly requests summary judgment, arguing that claims 1, 3, 4, 6, 11-13, and 15 of the ’055 Patent are infringed. But application of these claims to the accused products raises numerous genuine issues of material fact and disputes among technical experts permeate these issues. Summary judgment is not appropriate, and the issues of infringement here should be resolved by the jury, not the Court. Plaintiff's motion should accordingly be denied.

II. BACKGROUND

The ’055 Patent invention covers a specific bulk FinFET design and structure. Plaintiff's Motion seeks summary judgment with respect to independent claim 1 and its dependent claims 3, 4, 6, 11-12, and 15, as well as independent claim 13.

III. LEGAL STANDARD

A. Summary Judgment

Summary judgment should only be granted on an issue if there is no genuine issue of material fact and the moving party demonstrates it is entitled to judgment as a matter of law. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323–25 (1986). A fact is "material" if it might affect the outcome of the lawsuit under the governing law. *Merritt-Campbell, Inc. v. RxP Prods., Inc.*, 164 F.3d 957, 961 (5th Cir. 1999). An issue of material fact is "genuine" if the evidence could lead a reasonable jury to find for the non-moving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). If the non-movant bears the burden on the issue, and the movant makes a showing that there is no evidence to support the non-movant's case, then the burden shifts to the non-movant to identify specific evidence in the record and articulate the manner in which that evidence supports its claim. *Ragas v. Tenn. Gas Pipeline Co.*, 136 F.3d 455, 458 (5th Cir. 1998).

In determining whether summary judgment is appropriate, a court must resolve all ambiguities and draw all reasonable inferences against the moving party. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986).

B. Infringement

The patentee bears the burden of proving infringement by a preponderance of the evidence.” *SRI Int’l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1123 (Fed.Cir.1985) (en banc); *Creative Compounds LLC v. Starmark Labs.*, 651 F.3d 1303, 1314 (Fed. Cir. 2011). The patent infringement analysis is a two-step process in which the court first determines, as a matter of law, the correct claim scope and then compares the properly construed claim to the accused device to determine, as a matter of fact, whether all of the claim elements are present in the accused device either literally or by a substantial equivalent. *See Cybor Corp. v FAS Tech., Inc.*, 138 F.3d 1448, 1454-57 (Fed. Cir. 1998) (en banc). A claim is literally infringed if “each limitation in the asserted claim” is “found present in the accused device.” *Baxter Healthcare Corp. v. Spectramed, Inc.*, 49 F.3d 1575, 1582 (Fed. Cir. 1995). Thus, if even one limitation is not found in the accused products, summary judgment is not appropriate, and Plaintiff’s motion must be denied. *Id.*

IV. SAMSUNG DOES NOT INFRINGE ANY CLAIM OF THE ’055 PATENT

A. All Asserted Claims Are Not Infringed

1. The Accused Products Do Not Have “a Fin Active Region Which Is a Wall-Shape”

All claims of the ’055 Patent require that the alleged Fin active region be “wall-shape[d].” *See* ’055 Patent (Dkt. 228, Ex. 1) at independent claims 1, 7 and 13 (“a Fin active region which is a wall-shape single crystalline silicon”). There is, at a minimum, a genuine issue of material fact as to whether the alleged Fin active region in the accused products is, in fact, “wall-shape[d],”

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The term “wall-shape” has not been construed in this case and thus must be given its plain and ordinary meaning. Plaintiff, apparently recognizing that the accused products lack a “wall-shape” Fin active region under this term’s plain and ordinary meaning, now [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] As Dr. Subramanian opined,

[REDACTED]

[REDACTED]

In its motion, Plaintiff [REDACTED]

[REDACTED]

[REDACTED] Plaintiff

misconstrues Dr. Subramanian's opinion, [REDACTED]

[REDACTED]

In Dr. Subramanian's opinion, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Plaintiff may

disagree with this interpretation but, at a minimum, a genuine issue of material fact exists as to whether the "wall-shape" term reads on the alleged fin active region in the accused products.

Plaintiff attempts to gloss over this issue by [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] it is a question of fact appropriate for the jury as to whether the accused products have a fin active region which meets Plaintiff's construction of [REDACTED]

[REDACTED]

[REDACTED]

Plaintiff incorrectly suggests [REDACTED]

[REDACTED]

[REDACTED] Plaintiff is mistaken. As Dr. Subramanian explained, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Plaintiff also incorrectly suggests that Dr. Subramanian's testimony [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Plaintiff is, again, mistaken. As construed by the Court, "trapezoid" means "a shape having two parallel sides." *See* Dkt. 179 at 24-27. The alleged "Fin active region" [REDACTED]

[REDACTED] and this is just what Dr. Subramanian has opined:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

² Plaintiff does not assert claim 14, which requires the Fin active region to be trapezoidal, in its motion.

[REDACTED] As Dr. Subramanian opined,
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

Plaintiff alleges that [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

Plaintiff cannot generate a summary judgment issue where substantial disputes of fact exist. Here, a genuine issue of material fact exists as to whether the accused [REDACTED]
[REDACTED] Plaintiff's motion should accordingly be denied.

[REDACTED]

2. The Accused Devices Do Not Have the Claimed “Gate Oxide Layer” and “First Oxide Layer”

All claims of the '055 Patent require “a gate oxide layer which is formed on both side-walls of the Fin active region” and “a first oxide layer which is formed on the upper surface of said Fin active region.” *See* Dkt. 228, Ex. 1 at independent claims 1, 7 and 13. There is a genuine issue of material fact as to whether the accused devices meet these limitations.

In contrast to the plain language of the claims, the accused products have [REDACTED]

[REDACTED]

[REDACTED] As explained in Dr. Subramanian’s rebuttal report, this [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] do not satisfy the claim limitations of “a gate oxide layer which is formed on both side-walls of the Fin active region” and “a first oxide layer which is formed on the upper surface of said Fin active region” for multiple reasons. [REDACTED]

First, the accused products do not meet the limitations of “a gate oxide layer which is formed *on both side-walls* of the Fin active region” and “a first oxide layer which is formed *on the upper surface* of said Fin active region” because the alleged “Fin active region” in the accused products [REDACTED]

[REDACTED] [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

Second, even if the alleged “Fin active region” in the accused products had [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]—not “a gate oxide layer which is formed on both side-walls of the Fin active region” and “a first oxide layer which is formed on the upper surface of said Fin active region.”

Third, [REDACTED] the accused products does not meet the “first oxide layer” limitation because [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

Fourth, the [REDACTED] does not meet the “gate oxide layer” limitation because the [REDACTED] is not formed on side-walls of the Fin action region. *See* Dkt. 228, Ex. 1 at claims 1, 7, and 13 (requiring “a gate oxide layer which is formed on both side-walls of the Fin active region”). Instead, the [REDACTED]

[REDACTED]

Fifth, the [REDACTED] does not meet the “first oxide layer” limitation either because the [REDACTED] is not formed on an upper surface of said Fin action region. *See* Dkt. 228, Ex. 1 at claims 1, 7, and 13 (requiring “a first oxide layer which is formed on the upper surface of said Fin active region”). Instead, the [REDACTED]

[REDACTED]

Rather than address the multiple non-infringement disputes Defendants have raised, Plaintiff's motion overlooks these disputed facts and, instead, raises a lone claim construction argument for the first time—whether the accused products' [REDACTED]

[REDACTED]

[REDACTED] ⁵ See Dkt. 228 at 15-19.

Plaintiff contends that “the full range” of ordinary meaning of the “gate oxide layer” and “first oxide layer” terms “do not require those layers to be completely separate and distinct from one another.” Dkt. 228 at 4; *compare with* Dkt. 219 at 4 (arguing that layers need not be “completely *or physically* separate and distinct from one another”). Instead, Plaintiff looks to the specification and argues that the “labels and markings” in the '055 specification make it “abundantly clear” that “the first oxide and gate oxide layers are assigned separate names based on its relative location to the Fin active region.” Dkt 228 at 16-17; compare with Dkt. 219 at 4 (Plaintiff contending that the “first oxide layer” and “gate oxide layer” are “*merely different regions* of a continuous oxide layer that surrounds Fin active region 4, with the first and gate oxide layers *assigned separate labels due only to their relative location to the Fin active region.*”).

Plaintiff's new proposed construction has no support in the specification.⁶ The Claim Construction Order likewise does not support Plaintiff's new theory that the “gate oxide layer”

⁵ While Plaintiff could have raised this argument earlier during the claim construction proceedings, it did not do so.

⁶ The specification confirms the requirement of two “layers,” with “gate oxide layer” formed in one step and “first oxide layer” formed in another. *See* '055 Patent, Summary of Invention, at 4:37-47. Plaintiff refers to Figs. 3a-3b, and 4a, but these only suggest that the “first oxide layer,” “second oxide layer” and “gate oxide layer” may have the same material—but are not of the same “layer.” *Id.*

and “first oxide layer” can be “regions” of one layer, nor does it construe these two claimed layers to be formed at the same time or in the same step.⁷

Nevertheless, Plaintiff does not dispute that different terms are presumed to have different meanings. *See CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co.*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”). The Federal Circuit has consistently found a strong, clear and logical implication that where elements are listed separately in a claim, the different terms correspond to ***different structures***. *See HTC Corp. v. Cellular Commc’ns Equip., LLC*, 701 F. App’x 978, 982 (Fed. Cir. 2017) (“The separate naming of two structures in the claim ***strongly implies*** that the named entities are not one and the same structure”) (emphasis added); *Becton, Dickinson & Co. v. Tyco Healthcare Grp.*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (“Where a claim lists elements separately, ‘the ***clear implication*** of the claim language’ is that those elements are ‘distinct components’ of the patented invention.”) (emphasis added); *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004) (where the “claim lists the [first term] separately from the [second term] and does not suggest that the [second term] consists in part of a portion of the [first term]. Rather, the ***clear implication*** of the claim language is that the [second term] is a distinct component, separate from the [first term] of the claimed invention.”) (emphasis added); *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404–05 (Fed. Cir. 1996) (Where a claim recites two separate elements, these two elements “***logically cannot be one and the same***”) (emphasis added).

⁷ Plaintiff’s reliance on the Claim Construction Order’s statement that “Layer 12 surrounds the Fin active region on the sides and the top” does not support its new construction. Dkt. 179 at 15. Layer 12 is only described in the ’055 Patent as a “gate oxide layer,” and never as the “first oxide layer.” *See* ’055 Patent at 8:34-36. Indeed, the “first oxide layer” is removed. *See id.* at 8:13-16; Figs. 9a-d.

Applied here, Plaintiff cannot dispute that the term “first oxide layer” is entitled to the presumption of a different meaning than the term “gate oxide layer.” Plaintiff also cannot reasonably dispute that these claim terms are presumed—by strong, clear and logical implication—to correspond to different structures. Indeed, there is no disclosure in the asserted claims to suggest that the “first oxide layer” and the “gate oxide layer” are the same structure. *See Becton*, 616 F.3d at 1254 (“There is nothing in the asserted claims to suggest that the hinged arm and the spring means can be the same structure.”). There is no such disclosure in the specification,⁸ and the Court’s Claim Construction Order does not so require. Nevertheless, there is a genuine issue of material fact as to whether Defendants’ structures do, in fact, meet these two limitations, and that issue should be resolved by the jury.

But again, regardless of Plaintiff’s newly raised claim construction dispute, the question of whether Defendants’ structures do, in fact, meet these two elements is a question for the jury.

Aside from raising its new claim construction dispute regarding this one issue, Plaintiff ignores the Defendants additional contentions why their products do not meet the limitations of “a gate oxide layer which is formed on both side-walls of the Fin active region” and “a first oxide layer which is formed on the upper surface of said Fin active region” as described above. *See also* Dkt. 228, Ex. 9 ¶¶ 112-113, 121-122.

For these reasons, the accused products do not meet the limitations of “a gate oxide layer which is formed on both side-walls of the Fin active region,” and “a first oxide layer which is formed on the upper surface of said Fin active region.” While Plaintiff may disagree with

⁸ Plaintiff’s reliance on Figure 9d does not support its argument because there is no “first oxide layer” disclosed in Fig. 9d. Instead, in the embodiment, whose process is depicted in Figs. 9a-9d, a “first oxide layer” is formed (*see* Fig. 9a, 8:13-16, 5:14-16), and is subsequently removed (*see* 8:13-16, Figs. 9b-d).

Defendants' contention, the question of whether the accused products meet these limitations is a question of fact appropriate for only the jury to consider.

3. The Accused Products Do Not Have "A First Oxide Layer Which is Formed on the Upper Surface of Said Fin Active Region With A Thickness Greater or Equal to That of the Gate Oxide"

All claims of the '055 Patent require that the thickness of the claimed "first oxide layer" be "greater or equal to that of the gate oxide." *See* Dkt. 228, Ex. 1 at independent claims 1, 7 and 13. There is a genuine issue of material fact as to whether the accused products meet this limitation.

As explained above, the accused products do not include the required "gate oxide layer which is formed on both side-walls of the Fin active region" and "first oxide layer which is formed on the upper surface of said Fin active region." Even if these limitations were met (they are not), the accused products still do not infringe because [REDACTED]

[REDACTED]

As testified to by Defendants' witnesses and experts, [REDACTED]

[REDACTED]

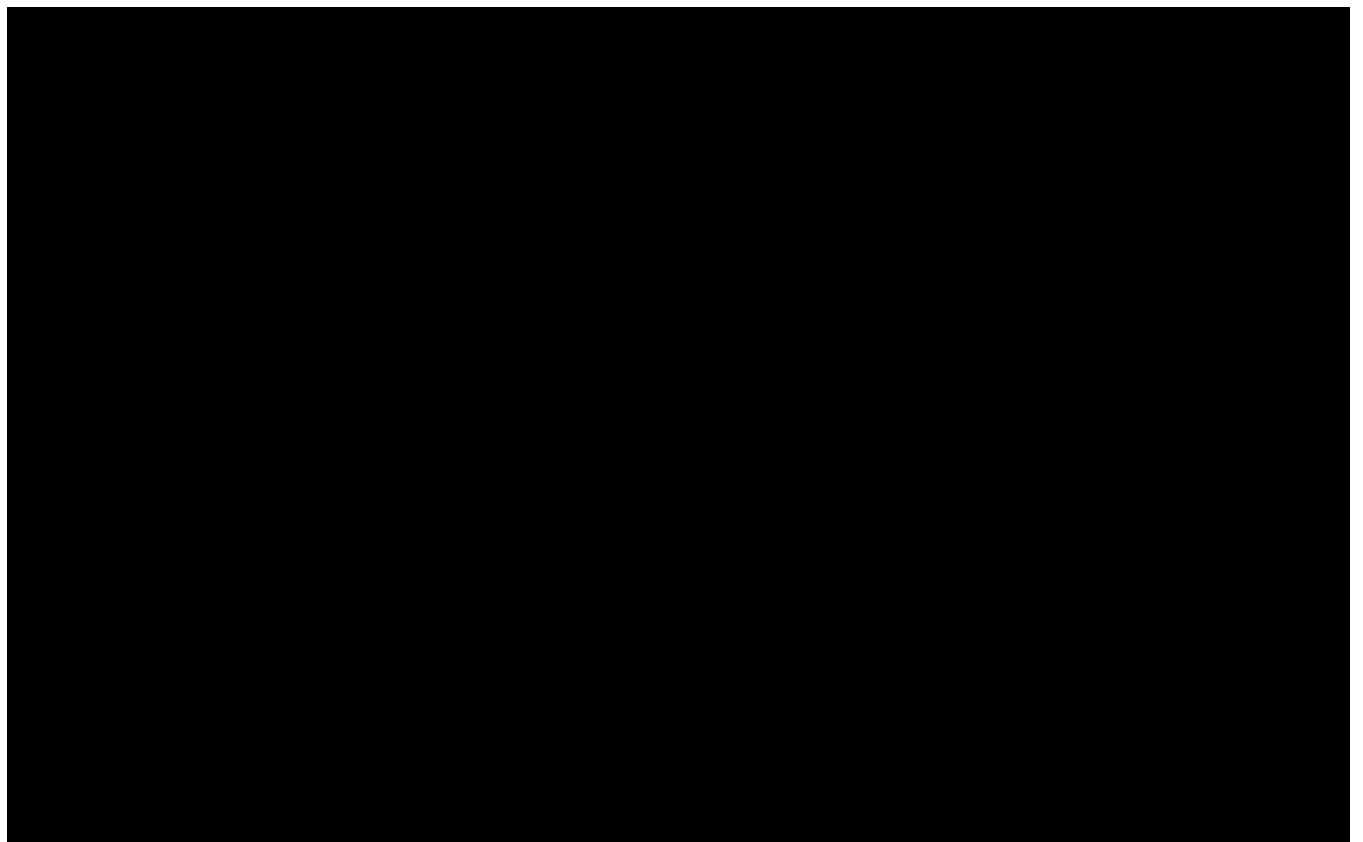
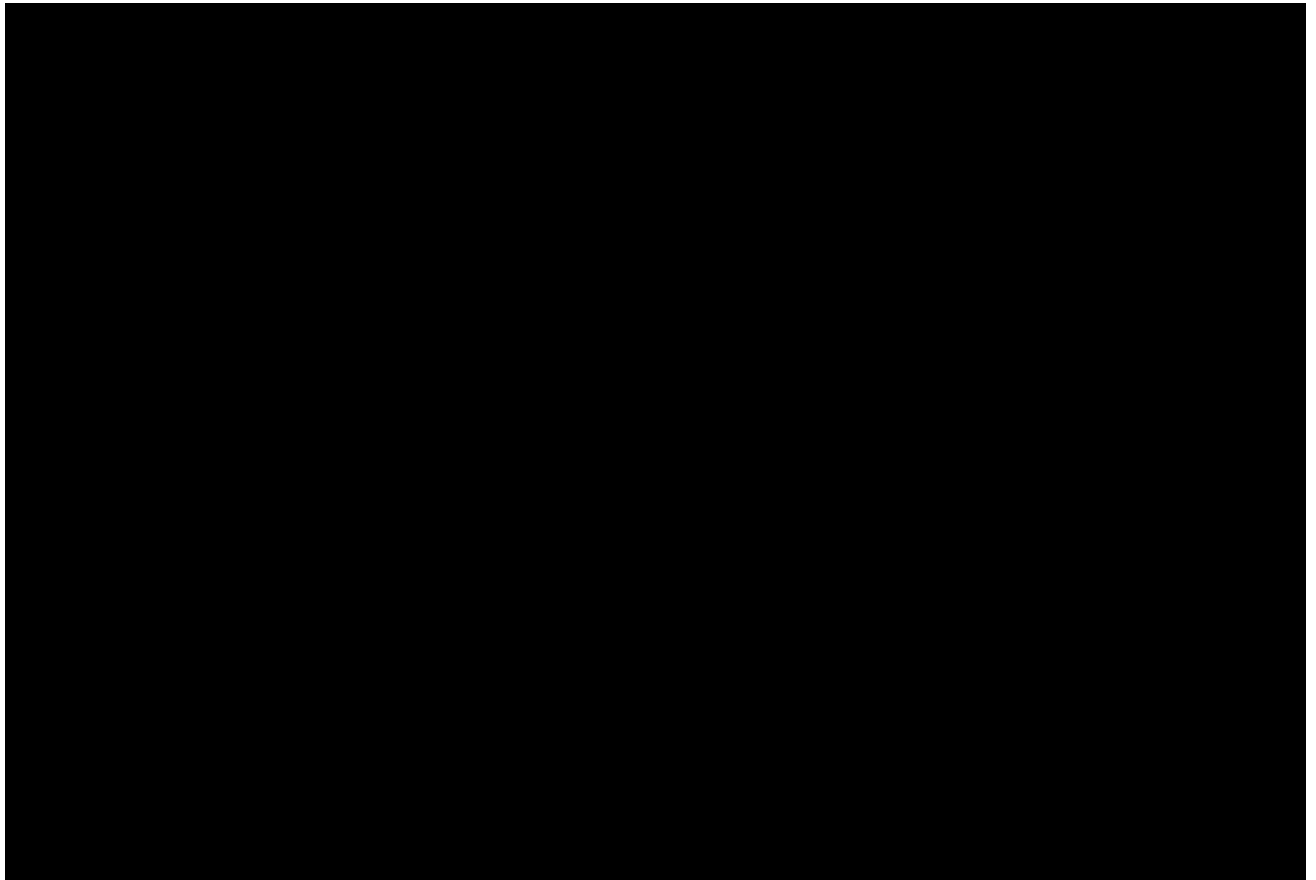
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[illegible]

Defendants' 30(b)(6) witnesses have confirmed that the

Plaintiff argues that [REDACTED] [REDACTED] [REDACTED] [REDACTED] e [REDACTED]

[REDACTED] [REDACTED] [REDACTED] [REDACTED] it [REDACTED] Plaintiff is incorrect. [REDACTED]

[REDACTED]

[REDACTED]

he witness testimony supports that the [REDACTED] [REDACTED] [REDACTED]

[REDACTED] [REDACTED] in the accused products. *See* Ex. 3 at [REDACTED] (indicating the

[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Plaintiff argues that [REDACTED]

[REDACTED]

[REDACTED] Plaintiff is incorrect. Specifically, Plaintiff's assertion is directly refuted by Defendants' produced documents and the testimony of their witnesses. For example,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In an attempt to support its false premise [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Plaintiff argues [REDACTED]

[REDACTED]

Plaintiff [REDACTED] argues that Samsung is “bound by this testimony, and cannot use an expert to contradict it.” Dkt. at 228 at 20–21. But that rule is not absolute and Plaintiff’s argument is overstated. *See, e.g., Kennett-Murray Corp. v. Bone*, 622 F.2d 887, 894 (5th Cir. 1980) (reversing the district court’s grant of motion

[REDACTED]

for summary judgment because it found that, although defendant's deposition contradicted his later affidavit on a dispositive fact, the contradiction could well have been attributed to a legitimate reason); *Hyde v. Stanley Tools*, 107 F. Supp. 2d 992, 993 (E.D. La. 2000) (finding that inconsistent affidavit may be accepted if accompanied by reasonable explanation); *State Farm Mut. Auto. Ins. v. New Horizont, Inc.*, 250 F.R.D. 203, 212 (E.D. Pa. 2008) (finding that the testimony of a Rule 30(b)(6) representative "is not a judicial admission absolutely binding on that party.") (quoting 8A Charles Alan Wright et al., *Federal Practice and Procedure* § 2103 (Supp. 2007)). Further, [REDACTED]

Plaintiff also argues that [REDACTED]

[REDACTED] Plaintiff misstates the facts. First, [REDACTED]

[REDACTED]

[REDACTED]

Second, this

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Third, Plaintiff

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

¹⁰ Further, to accept Plaintiff's contention would render meaningless or vitiate the claim limitation of the "first oxide layer" having "a thickness greater or equal to that of the gate oxide layer" [REDACTED]

[REDACTED]

[REDACTED] The '055 Patent provides no guidance on that matter given its focus on “wall-shape” Fin active regions and its associated disclosures indicating where side-walls end and the upper surface begins. Instead of acknowledging this fundamental distinction between [REDACTED] [REDACTED] and the “wall-shape” Fin active region in the '055 Patent,

For these reasons, the accused products do not meet the limitation that thickness of the claimed “first oxide layer” be “greater or equal to that of the gate oxide.” While Plaintiff may

disagree with Defendants' contention, the question of whether the accused products meet these limitations is a question of fact appropriate for the jury to consider.

B. Asserted Claims 1, 3, 4, 6, 11-12, and 15 Are Not Infringed For Additional Reasons

The accused products do not infringe claims 1, 3, 4, 6, 11-12, and 15 for all the reasons given above in Section III.A. In addition, the accused products do not infringe these asserted claims for the following reasons.

1. The Accused Products Do Not Have a "First Oxide Layer" That Is Formed by Oxidation

Independent claim 1 additionally recites that "the thickness of said first oxidation layer is between 0.5 nm and 200 nm." *See* Dkt. 228, Ex. 1 at claim 1.

The Court's Claim Construction Opinion addressed Defendants' indefiniteness arguments concerning the term "said first oxidation layer" in claim 1. The Court decided that the "said first oxidation layer" term was definite and found that the "first oxidation layer" refers to the earlier recited "first oxide layer" in claim 1. *See* Dkt. 179 at 29 ("[T]he 'first oxidation layer' is 'first oxide layer.'"); Dkt. 228 at 25-26 ("But as set forth in the Court's claim construction order, the claimed first oxidation layer simply refers to the first oxide layer.").

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] does not meet the limitation of the “first oxidation layer” because [REDACTED]

2. The Accused Products Do Not Have “A Fin Active Region Which Is a ... Single-Crystalline Silicon”

Dependent claims 11 and 12 both recite “[t]he device as claimed in claim 1, wherein ... said doping junction depth for the source/drain formed in said Fin active region...” (emphasis added). These claims show that the “source/drain region” must be “in” the Fin active region and must also be “single-crystalline silicon.” *See* Claim 1 (“a Fin active region which is ... single-crystalline silicon”). Contary to Plaintiff’s contention, [REDACTED]

[REDACTED]

[REDACTED]

The recitation of “said doping junction depth” lacks antecedent basis in claims 11 and 12, and in claim 1 from which it depends. “[T]he failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite.” MPEP § 2173.05(e). *See also Ex parte Porter*, No. 92-1668, 1992 WL 392605, 25 USPQ2d 1144, 1145 (Bd. Pat. App.

& Inter. 1992) (finding that “controlled stream of fluid” provided reasonable antecedent basis for “the controlled fluid”). One example where lack of antecedent basis does not render a claim indefinite is if the terms lacking such basis indicate inherent components of the elements recited.

According to MPEP § 2173.05(e): “Inherent components of elements recited have antecedent basis in the recitation of the components themselves. For example, the limitation ‘the outer surface of said sphere’ would not require an antecedent recitation that the sphere has an outer surface.” *See also Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1359, 61 USPQ2d 1216, 1218-19 (Fed. Cir 2001) (holding that the term “the major diameter of said ellipse,” did not require antecedent basis because “[t]here can be no dispute that mathematically an inherent characteristic of an ellipse is a major diameter”). Likewise, “said doping junction depth” recited in claims 11 and 12 do not require antecedent basis as they are inherent components of the source/drain region. Plaintiff’s arguments fail to support summary judgment for several reasons.

First, Plaintiff incorrectly states that the ’055 Patent teaches “that a preferred embodiment of the invention includes a device using selective epitaxial layers as the source/drain, where the epitaxial layers are made of something other than single crystalline silicon.” Dkt. 228 at 12 (emphasis added). In contrast, the ’055 Patent only discusses this specific embodiment as occurring “[i]n some cases.” Dkt. 228, Ex. 1 at 6:64–66. Indeed, none of the other embodiments disclosed in the ’055 Patent include this feature highlighted by Plaintiff. Thus, the principle that a claim interpretation excluding a “preferred embodiment” is rarely correct as invoked by Plaintiff is inapposite. Rather, the requirement that the source/drain regions are “in” the Fin active region is consistent with the specification of the ’055 Patent as a whole. The only reasonable interpretation of the element “said doping junction depth” saving it from indefiniteness is that it is an inherent feature of the “source/drain region.”

Second, Plaintiff's arguments that Defendants' products still meet the limitation of a "source/drain formed in said Fin active region" fail. Specifically, Plaintiff contends [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] However, these arguments strain to redefine the terms against their plain and ordinary meaning to cover the accused products. For example, Plaintiff's argument requires [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] These are arbitrary, unreliable and objectively unreasonable interpretations of the terms. At best, whether the accused products meet these claim limitations for the reasons presented by Plaintiff should be questions of fact for the jury.

Based on the above, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Plaintiff has not satisfied its burden of summary judgment of infringement based on its strained arguments as set forth above. Plaintiff may argue that Defendants' position is incorrect, but this is the bedrock of factual disputes that juries are intended to resolve. Accordingly, Plaintiff's motion should be denied.

3. The Accused Products Do Not Have a Fin Active Region With "Two Top Corners"

Dependent claim 15 shows that the claimed "Fin Active Region" in claim 1 has "two top corners." *See* Claim 15 ("The device as claimed in claim 1, wherein *the two top corners* of said Fin active region...") (emphasis added). Contrary to Plaintiff's contention, the requirement of "two top corners" in the Fin active region is not an improper importation of a limitation from a dependent claim into claim 1. Rather, the "two top corners" are *inherent components* of the Fin active region.

The recitation of "the two top corners" lacks antecedent basis in claim 15, and in claim 1 from which it depends. "The failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite." MPEP § 2173.05(e). *See also Ex parte Porter*, 25 USPQ2d at 1145 (finding that "controlled stream of fluid" provided reasonable antecedent basis for "the controlled fluid"). One example where lack of antecedent basis does

not render a claim indefinite is if the terms lacking such basis indicate inherent components of the elements recited.

According to MPEP § 2173.05(e): “Inherent components of elements recited have antecedent basis in the recitation of the components themselves. For example, the limitation ‘the outer surface of said sphere’ would not require an antecedent recitation that the sphere has an outer surface.” *See also Bose Corp.*, 274 F.3d at 1359 (holding that the term “the major diameter of said ellipse,” did not require antecedent basis because “[t]here can be no dispute that mathematically an inherent characteristic of an ellipse is a major diameter”). Likewise, “the two top corners” recited in claim 15 does not require antecedent basis as they are inherent components in the Fin active region.

Plaintiff’s attempt to [REDACTED]

[REDACTED] is untenable. First, the claims are device claims, and the “two top corners” are thus structural features required by the claim. Plaintiff’s interpretation that the “two top corners” are intermediate features preceding the process step of chamfering would read the recited element out of the claim and render its recitation meaningless. *See Wasica Fin. GmbH v. Cont’l Auto. Sys. Inc.*, 853 F.3d 1272, 1288 (Fed. Cir. 2017). Indeed, there is no antecedent basis for the “two top corners” anywhere in the claims to give meaning or context to Plaintiff’s contention that this element refers to any other state of the device before the process step of chamfering. Plaintiff’s interpretation is simply not supported in the claims or the specification and strains to void express terms in the claim.

Rather, the requirement that the Fin active region has “two top corners” is consistent with the specification of the ’055 Patent as a whole, which only discloses Fin active regions with two

top corners and does not disclose a single embodiment of a Fin active region lacking the two top corners. *See Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276–77 (Fed. Cir. 2008) (“We normally do not interpret claim terms in a way that excludes embodiments disclosed in the specification”); *Vitronics Corp. v. Conceptronics, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (finding that a claim interpretation that excludes a preferred embodiment is “rarely, if ever, correct”). The only reasonable interpretation of the element “the two top corners” saving it from indefiniteness is that they are inherent components of the “Fin active region.”

There is no genuine issue of material fact that the accused products [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Accordingly, the accused products also do not infringe for this reason and, at the very least, Plaintiff’s motion should be denied.

C. Claim 13 is Not Infringed for Additional Reasons

The accused products do not infringe claim 13 for all the reasons given above in Section III.A. In addition, the accused products do not infringe this claim because the accused products do not meet the “oxidation layer” limitation recited in claim 13.

Claim 13 recites that “the resistance of said Fin active region is reduced by enlarging the width of said Fin active region within *the oxidation layer* as it approaches the bulk silicon substrate.”

The Court’s Claim Construction Opinion addressed Defendants’ indefiniteness arguments concerning the term “the oxidation layer” in claim 13. The Court decided that “the oxidation

layer” term was definite and found that “the only reasonable interpretation of ‘the oxidation layer’ is a reference to the earlier recited ‘a second oxide layer.’” *See* Dkt. 179 at 47.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Claim 13 also places further requirements on the “second oxide layer. For example, claim 13 requires “a gate be formed on said first and second oxide layer.” *See* Dkt. 228, Ex. 1 at 14:10–11. [REDACTED]

[REDACTED]

[REDACTED]

V. CONCLUSION

For the foregoing reasons, Defendants respectfully request that the Court deny Plaintiff’s motion in its entirety.

Dated: April 9, 2018

Respectfully submitted,

/s/ Christopher W. Kennerly

Allan M. Soobert
PAUL HASTINGS LLP
875 15th Street, N.W.
Washington, DC 20005
Telephone: (202) 551-1822
Facsimile: (202) 551-0222
allansoobert@paulhastings.com

Christopher W. Kennerly
Joseph J. Rumpler, II
PAUL HASTINGS LLP
1117 S. California Avenue
Palo Alto, CA 94304
Telephone: (650) 320-1800
Facsimile: (650) 320-1900
chriskennerly@paulhastings.com
josephrumpler@paulhastings.com

Jeffrey D. Comeau
PAUL HASTINGS LLP
4747 Executive Drive, 12th Floor
San Diego, CA 92121
Telephone: (858) 458-3000
Facsimile: (858) 458-3005
jeffreycomeau@paulhastings.com

Soyoung Jung (*pro hac vice*)
PAUL HASTINGS LLP
515 South Flower Street, 25th Floor
Los Angeles, CA 90071
Telephone: (213) 683-6000
Facsimile: (213) 627-0705
soyoungjung@paulhastings.com

Melissa R. Smith
Texas State Bar No. 24001351
Harry L. Gillam, Jr.
Texas State Bar No. 07921800
GILLAM & SMITH, LLP
303 S. Washington Ave.
Marshall, TX 75670
Telephone: (903) 934-8450
Facsimile: (903) 934-9257

melissa@gillamsmithlaw.com
gil@gillamsmithlaw.com

COUNSEL FOR DEFENDANTS SAMSUNG
ELECTRONICS CO., LTD.; SAMSUNG
ELECTRONICS AMERICA, INC.;
SAMSUNG SEMICONDUCTOR, INC.;
SAMSUNG AUSTIN SEMICONDUCTOR,
LLC; GLOBALFOUNDRIES INC.;
GLOBALFOUNDRIES U.S. INC.; and
QUALCOMM INC.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was filed electronically in compliance with Local Rule CV-5 on this 9th day of April, 2018. As of this date, all counsel of record have consented to electronic service and are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5(a)(3)(A) and by email.

/s/ Christopher W. Kennerly
Christopher W. Kennerly

CERTIFICATE OF AUTHORIZATION TO SEAL

I hereby certify that under Local Rule CV-5(a)(7), the foregoing document is filed under seal pursuant to the Court's Protective Order entered in this matter.

/s/ Christopher W. Kennerly
Christopher W. Kennerly